

## CLAIMS

1. A method of testing to detect whether a female subject is predisposed to Premature Ovarian Failure (POF) which comprises the step of detecting the presence or absence of an alteration in the gene encoding inhibin, wherein the presence of an alteration is indicative of a predisposition to POF.
2. A method according to claim 1 wherein the presence or absence of an alteration is determined by analysis of DNA coding for inhibin.
3. A method according to claim 1 wherein the presence or absence of an alteration is determined by comparing the sequence of DNA from a sample from said subject with the DNA sequence coding for wild-type inhibin.
4. A method according to claim 1 wherein the presence or absence of an alteration is determined by Restriction Fragment Length Polymorphism (RFLP) using restriction enzyme Bst71I.
5. A method according to claim 1 wherein the presence or absence of an alteration is determined by analysis of mRNA transcribed from DNA encoding inhibin.
6. A method according to claim 1 wherein the presence or absence of an alteration is determined by comparing the sequence of mRNA from a sample from said subject with the mRNA sequence transcribed from DNA coding for wild-type inhibin.
7. A method according to claim 1 in which the presence or absence of an alteration is determined by analysis of the amino acid sequence of the expressed inhibin protein.
8. A method according to claim 1 wherein the presence or absence of an alteration is determined by comparing the amino acid sequence of the expressed inhibin protein from a sample from said subject with the amino acid sequence of wild-type inhibin protein.
9. A method according to claim 1 wherein the presence or absence of an alteration is determined by comparing the level of expression and/or activity of inhibin protein present in a sample from said subject with the level of expression/activity of wild-type inhibin protein.

10. A method according to claim 1 in which the presence of a G → T substitution at nucleotide 769 of INHα is indicative of a predisposition to POF.
11. A method of prophylactic and/or therapeutic treatment against Premature Ovarian Failure (POF) of a female individual identified as having a risk of predisposition to cancer by a method according to any preceding claim which comprises the step of increasing, maintaining and/or restoring the active concentration of wild-type inhibin protein within said individual.
12. A method of treatment according to claim 11 which comprises supplying said individual with wild-type inhibin gene function.
13. A method of treatment according to claim 11 which comprises administering wild-type inhibin to said individual.
14. The use of wild-type inhibin in the manufacture of a medicament for treating or preventing Premature Ovarian Failure (POF) in a female.